

TRAFFIC MANAGEMENT PLAN

Richardson ISD Aikin Elementary School Dallas, Texas

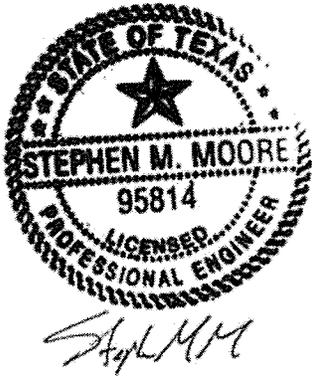
Exhibit 572B

Planned Development
District No. 572

Approved
City Plan Commission
October 20, 2016

July 12, 2016

Prepared for
Richardson ISD



1201 North Bowser Road
Richardson, Texas 75081

Firm Registration No. 312

Table of Contents

I. INTRODUCTION 1

 1.2 Purpose and Methodology 2

II. TRAFFIC MANAGEMENT PLAN 3

 2.1 Operational Characteristics 3

 2.2 Site Access and Circulation 4

 2.3 Traffic Count Data and Observations 5

 2.4 Proposed Campus Improvements 6

III. RECOMMENDATIONS 7

IV. SUMMARY 8

I. INTRODUCTION

Halff Associates, Inc. (Halff) was retained by Richardson ISD (Client) to prepare a Traffic Management Plan (TMP) for Aikin Elementary School located in Dallas, Texas. Figure 1 below is a map detailing the site location. A copy of the site plan has been included in the Appendix as Exhibit 1, which also shows the TMP for the school.

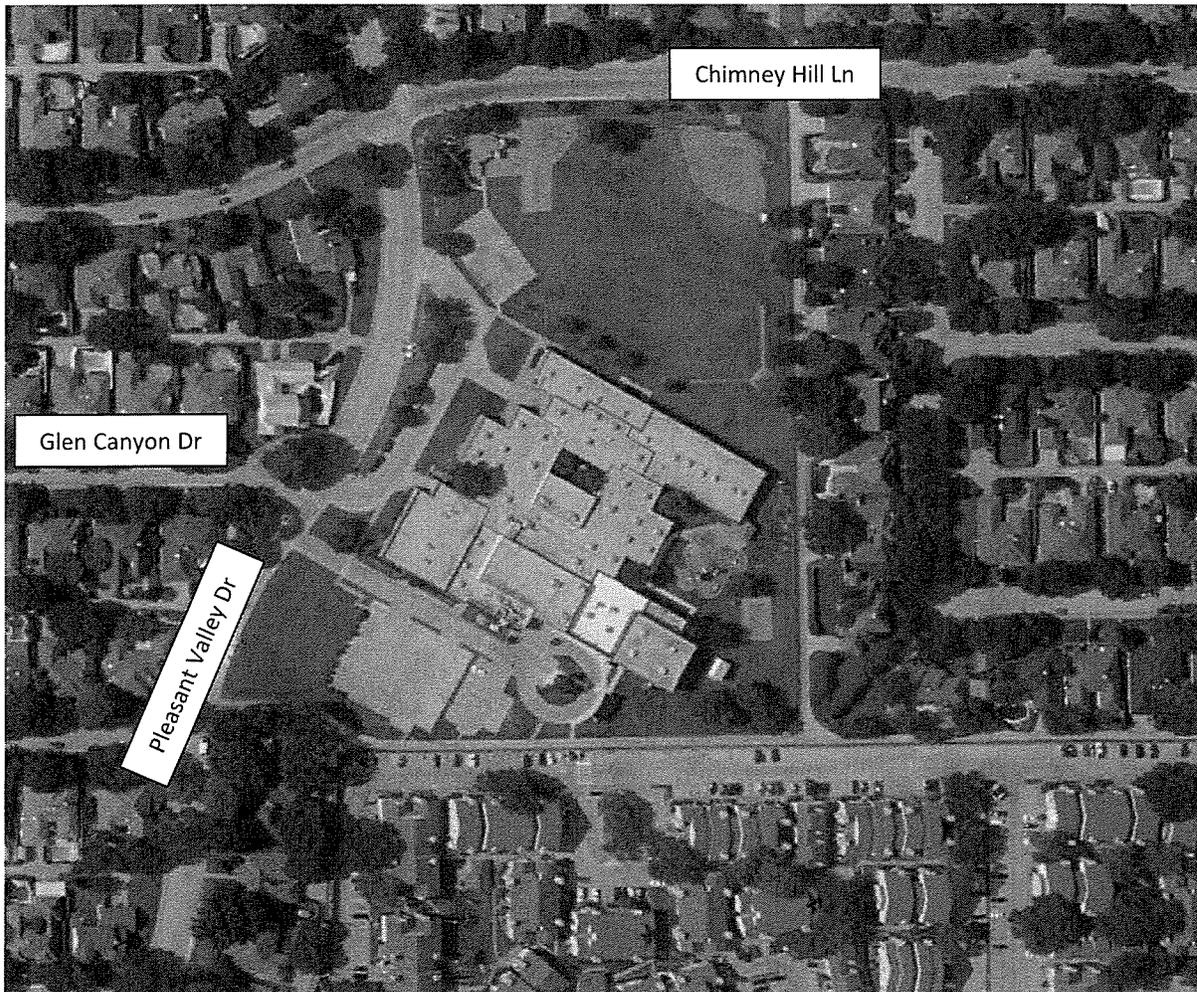


Figure 1 – Site Location Map

The school is currently in operation with an enrollment of approximately 750 students in grades pre-kindergarten through 6th. The RISD is planning to add new administrative space on the campus, which will not alter the student enrollment at the school. The new office is expected to be in place by the fall of 2017.

1.1 Purpose and Methodology

Halff conducted the TMP for Aikin Elementary School at the direction of the City of Dallas, in order to identify current traffic patterns and operations at and around the school campus. Halff focused on the afternoon pick up time period since this time period typically has the most queuing impacts, with parents arriving before students are released and queuing / parking on and around the school campus. During the morning peak period, traffic is spread out over a 30- to 45-minute period, with parents dropping off their student(s) and then departing the school. The peak vehicle queuing is generally less in the morning peak than it is in the afternoon.

Halff met with the school's principal to discuss current traffic operations during the morning drop off and afternoon pick up time periods. Halff then conducted PM (2:15 – 3:15) peak period traffic counts and observations at the school campus on Tuesday, April 12, 2016. Vehicles were counted entering and exiting the drop-off / pick-up loop drive on the west side of the building and the staff parking lot on the south side of the site. Vehicles were also counted dropping off / picking up students along Pleasant Valley Drive, Chimney Hill Lane, and Glen Canyon Drive. School buses and day care vans / buses were also identified. Halff also noted the vehicular queues during the afternoon peak period.

From the traffic counts and observations, Halff estimated the one-hour peak trip generation for the school for the afternoon pick up period. Using the school layout, proposed campus improvements, attendance zone boundaries, and estimated trip generation and queuing, Halff developed the TMP to facilitate safe, efficient drop-off and pick-up operations at Aikin Elementary School.

II. TRAFFIC MANAGEMENT PLAN

The purpose of the Traffic Management Plan (TMP) is to have established procedures for traffic flow and circulation around the elementary school related to student drop-off and pick-up operations. Use of a TMP helps improve traffic / student safety and helps maximize the efficiency of drop-off and pick-up operations, reducing delays during those time periods. The analysis summarized in this report identifies critical elements of the TMP such as available queuing space that is both on and off site, circulation patterns for the school facilities, and the projected trip generation (and estimated queuing) during the afternoon peak period.

2.1 Operational Characteristics

Based on information from Richardson ISD, the elementary school currently has:

- 750 students
- 80 staff members
- 45% students that walk to / from the school *
- <5% students that ride a school bus **

* Most of the students that walk to / from the school are drawn from the apartment complex located directly south of the campus. The remainder of the walking students are drawn from the apartment complexes located in the northeast quadrant of the Abram Road / Chimney Hill Lane intersection.

** This does not include students that are picked up by private day care vehicles (vans or buses) in the afternoon.

The normal daily schedule for the school is:

- All grades start at 8:00 AM
- Pre-kindergarten students are released at approximately 2:55 PM
- Kindergarten through 6th grade students are released at 3:00 PM

Although the operating times of the school are established, not all students enter / exit the site at the same time. Other activities at the school (such as the breakfast program, after-school tutoring, student clubs, etc.) may cause students to arrive / leave at times outside the normal class times. Occasional special events at the school may generate traffic peaks that are outside of the normal drop-off and pick-up times. While these special events were not addressed as part of the TMP, measures or recommendations discussed in this report may be applicable.

2.2 Site Access and Circulation

The Aikin Elementary School campus has a 90-space parking lot on the south side of the building for faculty / staff parking. The parking lot is accessible from a single driveway along Pleasant Valley Drive. The special education bus and the day care vans / buses drop off / pick up students in a small loop drive on the south side of the building, accessible through the staff parking lot.

Along the front (west side) of the building is a one-way loop drive that circulates from south to north. The loop drive is two lanes wide plus eight (8) parallel parking spaces on the left of the loop. The lane closest to the building is designated for student drop off / pick up and the other travel lane is designated as a bypass / circulation lane.

Halff observed traffic flow on and around the school campus during the school PM peak (2:15 – 3:15 PM) on Tuesday, April 12, 2016. Below is a discussion of the current procedures that the school is utilizing during the afternoon pick up time period.

School PM Peak Period

In the school PM peak period, pre-kindergarten students are released from the southwest corner of the building. Pre-K parents are required to sign out their student(s), so most park in open spaces in the staff parking lot and walk to the pre-K release point.

Students walking to the apartment complex south of the campus are released from the southeast corner of the building. A staff member escorts groups of students around the east side of the day care loop drive and across an alley to a gate providing access to the apartment complex.

The remaining students are released from the front (west) side of the building. Students being picked up in the front loop stage on the concrete play area on the northwest side of the building. Parents entering the loop drive display a placard with their student's name and grade. A staff member stationed towards the entrance of the loop drive relays the student's information to other staff members at the staging area, and direct the student to one of four designated loading areas at the north end of the loop. Staff members are stationed at each loading area to assist students with entering their vehicle.

Students not being picked up in the front loop are also released from the front (west) side of the building, but they walk around the loop drive (north or south) towards their destination. Some students walk unaccompanied to their residence (primarily the apartment complexes in the northeast quadrant of the Abrams Road / Chimney Hill Lane intersection), or walk to a vehicle parked along Pleasant Valley Drive, Chimney Hill Lane, or Glen Canyon Drive.

2.3 Traffic Count Data and Observations

Halff conducted traffic counts and observations during the school PM peak (2:15 to 3:15 PM) on Tuesday, April 12, 2016. The counts were conducted at the following locations:

- Staff parking lot driveway
- Front loop entrance and exit driveways
- Pleasant Valley Drive
- Chimney Hill Lane
- Glen Canyon Drive

Pedestrian activity was also recorded around the campus.

Halff conducted the traffic counts and observations in order to estimate the number of vehicle trips generated by the school at its current enrollment, approximately 750 students. A summary of the observed trip generation is presented in Table 1. The trips shown are comprised of the vehicles turning into and out of the school driveways and the vehicles observed picking up students on streets adjacent to the school during the school PM peak hour.

Table 1 – Site Generated Trips (Observed)

Elementary School 750 students	School PM Peak Hour		
	In	Out	Total
Pick-up Loop	53	55	108
On-Street Pick-up	62	62	124
Staff Parking Lot	48	53	101
Total Trips - Observed	163	170	333

From the peak hour observations and traffic counts, Halff estimates the peak number of vehicles picking up students in the school PM peak hour to be approximately 163. This includes vehicles passing through the front loop drive, picking up pre-K students in the staff parking lot, day care vans / buses picking up students in the staff lot loop area, and vehicles parked along the streets adjacent to the school.

On the day of Halff’s observation, parents began queuing in the front loop drive around 2:15 pm. By 2:50 pm, the front loop drive was full (14 vehicles), and the queue extended back onto Pleasant Valley Drive. Cars continued queuing along north- and southbound Pleasant Valley Drive until students were released at 3:00 pm. Parents began parking along the adjacent streets around 2:30 pm, and continued to arrive until a few minutes after students were released.

There are parking restrictions in place during the school peak periods along southbound Pleasant Valley Drive from Chimney Hill Lane to south of Glen Canyon Drive. These restrictions were ignored by parents who were observed parking along southbound Pleasant Valley Drive on the day of Halff’s observations. Parking is also restricted along northbound Pleasant Valley Drive in certain areas around the school driveways. Some of these restrictions were ignored on the day of Halff’s observations. Pleasant Valley Drive and Chimney Hill Lane are both 36-foot wide streets adjacent to the school campus, which allows for queuing or parking in the outside lanes while still maintaining an open travel lane.

The Pleasant Valley Drive / Glen Canyon Drive / front loop entrance drive area experiences some congestion during the school PM peak period, with vehicles queuing in the front loop, queuing on Pleasant Valley waiting to enter the front loop, and parking on both sides of Pleasant Valley. There is also a crosswalk across Pleasant Valley Drive at this intersection. A school staff member is stationed at this crosswalk, assisting student / parents crossing Pleasant Valley Drive and also directing traffic entering the front loop drive.

There is also some congestion at the Pleasant Valley Drive / Chimney Hill Lane intersection. This intersection operates as an all-way stop condition, and there are crosswalks across the south, east, and north legs of the intersection. A crossing guard is stationed at this intersection to assist students leaving the school.

As is typical with elementary schools, parents begin to arrive at Aikin Elementary School 30 to 45 minutes before students are released, with arrivals peaking 5 to 10 minutes before the 3:00 pm release. The congestion around the campus has a relatively short duration, with all pick-up activities completed by 3:15 pm on the day of Halfff's observations.

2.4 Proposed Campus Improvements

As mentioned, the RISD is planning to add new administrative space to the Aikin Elementary School campus to accommodate the current and projected needs of the current student population. Only administrative building space will be added to the campus. There will be no changes to the front loop drive or staff parking lot.

It would be desirable if all parent drop off / pick up activities associated with Aikin Elementary School could be accommodated entirely on the school campus and out of any City of Dallas right-of-way (ROW). However, the short loop drive at the front of the building does not provide sufficient room for this to occur, and there is limited space on the campus to accommodate student drop off / pick up activities. Therefore, some parents will continue to park / stand along the adjacent streets when picking up their student(s).

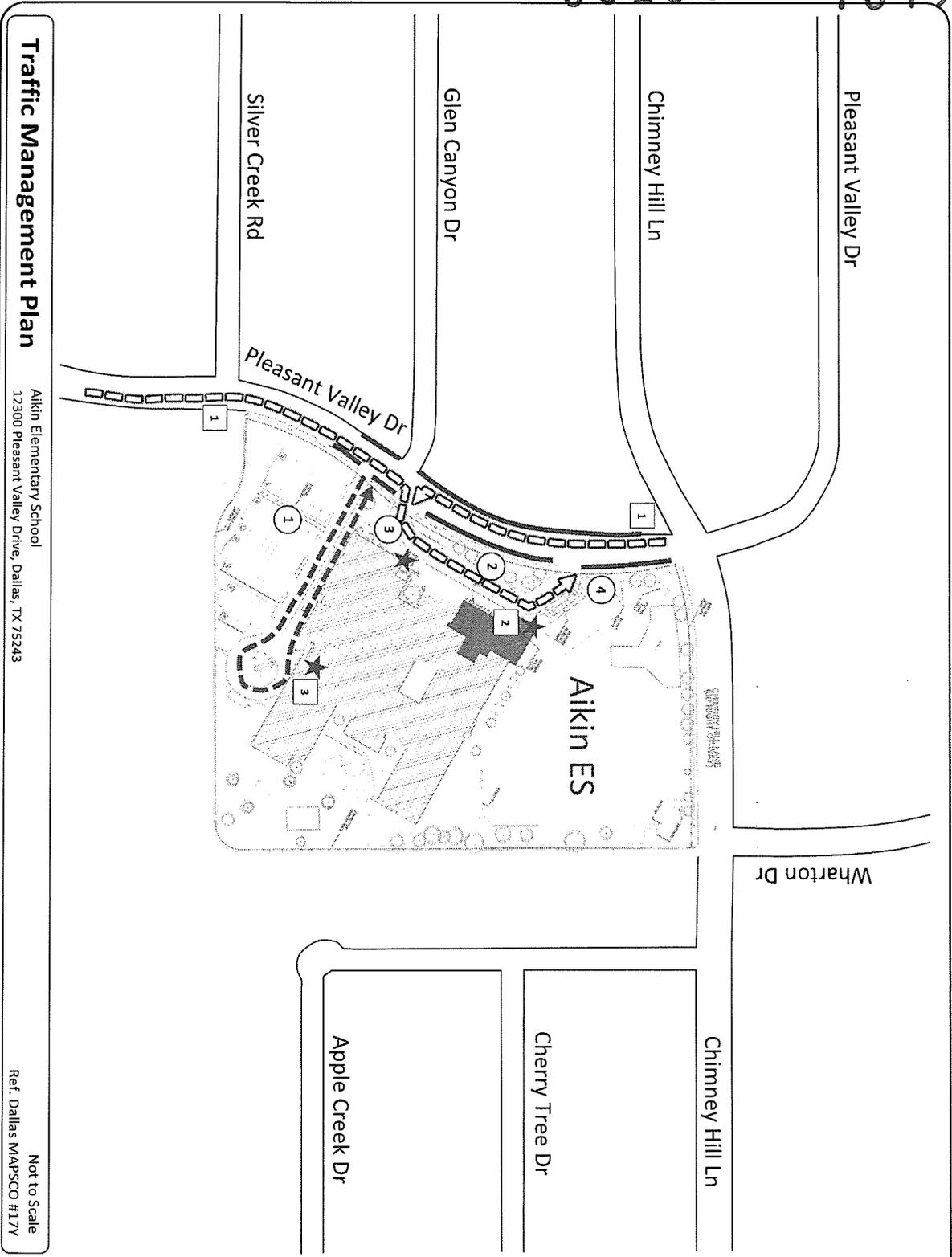
Exhibit 1 in the Appendix is the Traffic Management Plan exhibit for Aikin Elementary School, which shows the proposed queuing area allocated in the front loop and along southbound and northbound Pleasant Valley Drive, for student pick up by passenger vehicles in the front loop.

III. RECOMMENDATIONS

The school already executes many traffic management steps during the school peak periods to minimize the impacts to the adjacent roadway network, including using placards to identify parents passing through the front loop, separating the pre-K student pick up area from the rest of the students, and separating the day care / special education vans and buses from the majority of the parent traffic. The school should continue to implement the management steps currently in place, and should strive for improving efficiency of the drop off / pick up operations by continually training / educating the school staff on the processes and procedures and distributing the traffic management information to the parents. This will help to minimize the disruptions to background (non-school) traffic flow around the campus. Halff also recommends that only law enforcement officers attempt to direct traffic on City streets. School staff should limit their responsibilities to the campus only. It would also be beneficial for the City to enforce the existing parking restrictions along Pleasant Valley Drive to maintain queuing space and room for vehicles to bypass the queues along the road.

IV. SUMMARY

The proposed campus expansion project will add new administrative space to Aikin Elementary School, but will not increase the enrollment from existing 750 students. There will continue to be some congestion around the school during the morning and afternoon peak periods, as is common around many elementary schools. But Halff's observations at Aikin Elementary School showed that the afternoon peak generally lasted for only 30 minutes (2:45 to 3:15 pm). With the continued use of the Traffic Management Plan procedures that the school has implemented and operates on a daily basis, and with continued staff and parent education / training, the impacts to the adjacent roadway network can be minimized. The TMP should be reviewed regularly and modified / adjusted as necessary to reflect changing traffic conditions around the school.



Traffic Management Plan

Aikin Elementary School
12300 Pleasant Valley Drive, Dallas, TX 75243

Not to Scale
Ref. Dallas MAPSCO #17Y

Planned Development
District No. 572

Approved
City Plan Commission
October 20, 2016

<p>LEGEND</p> <ul style="list-style-type: none"> Bus/Daycare Circulation Path Front Loop Circulation Path Restricted Parking Zone 1 Pick-up Queue/Travel Path 2 Drop-off/Pick-up Area 3 Bus/Daycare Van Loading Staff Assistant 1 Staff Parking 2 Visitor Parking 3 Front Loop Entrance 4 Front Loop Exit 	<p>Campus Information</p> <p>Current Enrollment: 750 Students Academic: Grades K-6 Class Hours: 8:00 AM – 3:00 PM</p>	<p>Queueing (Passenger Vehicles)</p> <p>Projected Demand: 1,160 ft (58 veh.) Available Capacity: 380 ft (19 veh.) In Front Loop: 780 ft (39 veh.) NET Deficiency: 780 ft (39 veh.)</p>	<p>NOTE:</p> <p>This Traffic Management Plan was developed to minimize the queuing of drop-off/pick-up related vehicles within the City right-of-way. The school administration should adhere to the TMP and any deficiency due to spill over of queuing into undesignated areas of the City right-of-way, including roadway travel lanes, should be corrected by the school immediately.</p>
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EXHIBIT 1